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THE RELATION BETWEEN TRIGEMINAL NEURALGIAS AND MIGRAINE.

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In the year 1896 I published a series of cases illustrating an affection which I had studied for many years and which I designated provisionally as migranoid neuralgia of the fifth pair. The purpose of the essay was to call attention to the clinical peculiarities of the typical, recurrent form of supraorbital neuralgia, which differs widely from the neuralgias of the other branches of the trigeminal, and to emphasize its kinship to migraine, the fact being reverted to that Anstie used to consider migraine as a supraorbital neuralgia. This paper was published in the "Transactions of the Association of American Physicians,"[1] and in the *Boston Med. and Surg. Jr.*, Vol. 135, II, 1896. In the following year a brief but welcome critical notice of it was written by Möbius[2] in which the claim of a kinship between the neuralgia of the ophthalmic division and migraine was disputed, and the position was taken that a relationship between the two diseases existed only in so far as that both were indicative of a neuropathic tendency on the part of the patient.

There will always be those who take pleasure in drawing sharp distinctions between groups of phenomena, and those also who find satisfaction in noting the resemblances between them, and both of these methods, if honestly followed, have their value. The excellent work of Möbius has always been penetrated by the former of these tendencies, but sometimes to an extreme degree. It may be assumed as probable that there is some genetic relationship between the neuroses, analogous in a broad sense to that existing between the different animal species. It is not, in view of the best modern thought, to be assumed that, in either case, a distinct and complete series of gradations will ever be discovered. The ape is not the parent of the man, but the two organisms represent developments on analogous but slightly divergent lines. In the same sense, I do not claim that before the symptom complex which we call migraine (itself far from sharply defined) had taken its present form, it went through a stage now represented by the recurrent ophthalmic neuralgia. I reaffirm, however, that this affection stands out vividly from among the other neuralgias of the trigeminal nerve, and that some of the characteristics that it presents strikingly recall migraine, in such a way that the study of either disease throws some light on our knowledge of the other. I pointed out in the paper referred to the fact that not infrequently ophthalmic neuralgia occurs in families and individuals having a tendency to migraine, and that migraine of early years may turn later into ophthalmic neuralgia, and also that one sees occasionally, though very rarely, migranoid features characterizing the neuralgias of other branches of the fifth nerve.

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[1] "On Periodical Neuralgias of the Trigeminal Nerve and Their Relation to Migraine, with Special Reference to the Intermittent Supraorbital Neuralgia."

[2] Reference mislaid.

I described a striking case of this sort which I had followed for a long time, where attacks of pain in the infraorbital area, which had seemed to originate in the disease of a canine tooth, assumed the migranoid type, recurring at intervals of several weeks, in the form of definite seizures, each lasting one day and being attended, as a rule, by nausea, and often vomiting, prostration, and sometimes hemicrania.

The object of the present communication is to reinforce this view by the report of another case in which an ophthalmic neuralgia of typical form, following, as it so often does, a sharp attack of coryza (usually coryza of the frontal sinus) and recurring daily for several days at nine o'clock in the morning, to pass away again at one or two o'clock in the afternoon, was associated with temporary hemianopsia and other symptoms which are characteristic of migraine and certainly foreign to the clinical history of what we call neuralgias. I say what we call "neuralgias," because the names that we give and the lines that we draw, useful as they are, often serve to imply distinctions which are after all but artificial.

This patient was a young man of nineteen, a book-keeper, previously free from any tendency to migraine or neuralgia except that once he had pain over both eyes during an attack of coryza. This pain was not intermittent, so far as he could remember, and lasted but two or three days. His mother had been subject to typical migraine, but neither of his five brothers and sisters had suffered in the same way. During the few days previous to his visit to my office he had a sharp attack of coryza, which, however, was already better so far as the nasal discharge was concerned. On the second day before I saw him he woke in the morning with nausea and loss of appetite so that he was unable to eat any breakfast, in spite of which he went to his work as usual. That night he slept well. The next morning he woke feeling pretty well and took some breakfast and went to work. At about nine o'clock his manuscript began to look blurred, and a left hemianopsia rapidly developed, unattended by vibrating scotoma. After about five or ten minutes the visual defect passed away and instead of it a left frontal headache came on, accompanied with nausea. The headache continued until between one and two o'clock the same afternoon. There was no disorder of speech or paresthesia of the hand. In the afternoon he felt pretty well, but on the two following days the same occurrence was repeated, the third attack being very slight, perhaps on account of a large dose of quinine taken four hours before the time of the expected seizure. The temperature at the time of his first visit was 98 and his pulse 88. The hands were cold, as they had been off and on since the symptoms began. In other respects his physical condition was entirely normal. Ever since this attack which occurred two years ago, he has remained free from such seizures

The seat of the pain in this case coincided with the distribution of the ophthalmic division of the fifth pair, and in its duration and mode of recurrence the attack was distinctly like that of a typical ophthalmic neuralgia, and like it too in that it followed the stage of an acute coryza, while in other respects it was typical of migraine. On the other hand, it is certainly unusual for a person not subject to migraine to have a single attack for the first time at the age of nineteen and not again during the next two years and unusual too for migraine to disappear at noontime and not to recur again until the next morning as late as nine o'clock, on several successive days, though histories of analogous sorts are occasionally given.[3]

The fact is that if we glance over the whole range of the typical painful affections of the different parts of the body—the head, the forehead, the face, the scapulo-brachial area, the intercostal area, the sternal and cardiac areas, the abdomen, the legs, the feet, etc.—we see that we have to do with a large series of disorders presenting more or less characteristically common features and likewise striking differences. Taking the character of the pain alone into account, there is but little, for example, in the sickening sense of localized intense pressure, so common in the intercostal region or at the lower angle of the scapula, to recall the rending pain of a sciatica, and still less in the "epileptiform" lightning flashes of a tic douloureux to recall the steady or throbbing ache of a supraorbital neuralgia.

In each of these cases the essential element of the disease is surely a dynamic or chemico-physical change, or peculiarity of structure, of some part of the central nervous system, and in each there is usually some evidence likewise of peripheral provocation of the outbreak.

What has been gained by putting the vast shifting collection of symptoms that we designate as migraine into a group by themselves? In spite of all that has been written as regards vasomotor theories is there any feature of "migraine" that justifies the assumption of a pathology different from that of the "neuralgias," or even any feature that does not have its analogue in one or another of these disorders? Certainly all of them, supraorbital neuralgia far more than the rest, present symptoms that indicate an involvement of nervous centers other than those whose functions are exclusively or directly sensory. Vasomotor changes, functional motor paralyses,[4] hysteroid symptoms, mental depression, attacks of "urina spastica" are liable to complicate them all. In one of the chronic "supraorbital" cases that was reported in my earlier paper a weakness and strange feeling in the legs preceded each outbreak of pain.

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[3] See Möbius's monograph; Nothnagel's "Spec. Path. u. Therap." XII, iii, I.

If the clinical history of migraine has to deal with a relatively large number of these accessory symptoms, and is in general more rich and varied, and if on the other hand the "neuralgias" are more often associated with pronounced neuritis, these differences are of degree and not of kind,[5] and are due partly to the fact that the centers involved in the case of migraine are of such high functional significance and united in such wide and close association with other cerebral areas.

In spite of the neuritis the typical neuralgias are diseases essentially of the nerve-centers, or at least of the nerve-centers in common with the nerve-trunks. The history of the peculiarly interesting, typically recurrent supraorbital neuralgia reinforces this view by furnishing an example of an intermediate condition, in the sense indicated at the beginning of this paper. In fact it is sometimes difficult and perhaps impossible to say, in a given case, whether one has to deal with an ophthalmic neuralgia or a migraine ("status hemicranicus" "hemicranica permanens sive protracta").

Such cases are the one described in this paper, others in the earlier paper, and many of those given in the classical treatises on migraine and in Mingazzini's paper on the psychical complications of hemicrania.[6] The latter writer cites, for example, a case reported by Griesinger[7] where a patient, then forty years of age, had during the first years of life a simple right-sided neuralgia of the trigeminal which gradually passed over into what was considered a migraine, characterized by pain in the depth of the orbits and a sense as of a veil over the head, and also by the appearance of "visions" when the eyes were closed, consisting in strange figures, as of youths, of skeletons, etc.

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[4] I have now under observation a young man who, in association with a continuous supraorbital neuralgia of several weeks' duration, has had a marked paresis of the oculomotor, and perhaps ciliary, branches of the third nerve, which gradually passed away as the neuralgia improved, both finally disappearing.

[5] It is well known that the supraorbital nerve often becomes very tender in migraine attacks, especially if of long duration. See also the closing references in this paper.

In the same article reference is made to a study by Krafft-Ebing[8] of the psychopathic disturbances attending "neuralgias." In light cases this "dysphrenia neuralgica" consists only in irritability and melancholic depression, but in severe cases, "especially in neuralgia of the fifth and the intercostals, deep reaching disturbance of consciousness and even complete loss of consciousness may occur."

I will permit myself but one more remark, namely, that in spite of the large part that "neuritis" seems to play, and does play as a complication, in the clinical history of the neuralgias, not only the character but the distribution of the pain in these affections is mainly controlled by the "central" element in them and is to be studied as an example of "segmental" disorders in the sense of Head, and with his well-known observations in mind.

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18 BERI-BERI. Yamagiva (Virch. Arch., 156, 1899, p. 451).

This author declares that all the changes seen in the organs in beriberi are due to purely degenerative causes and not inflammatory ones, and especially that it should not be considered as a form of polyneuritis. He states further that not a single parasite, so far as known, can be held accountable as a causative factor. His view holds that beriberi is an intoxication due to the eating of certain kinds of rice at certain seasons of the year. JELLIFFE.

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[6] Monatsschrift für Psych. u. Neurol. Feb., 1897.

[7] Not at hand in the original.

[8] In Maschka, "Medic. legale," Vol. IV, capit. "Follia alcoolica" S. 719.